

In the Claims

1. (Currently Amended) A continuous time sigma delta converter comprising:
conversion means (510, 520, 530, 540, 560) having known non-ideal characteristics and arranged to provide an output signal;
a compensation circuit (570) comprising error modelling components (370, 375, 380, 385, 390, 395) arranged to substantially model the non-ideal characteristics of the conversion means (510, 520, 530, 540, 560) in order to provide a compensation signal; and summation means (490) coupled to combine the compensation signal with the output signal in order to provide a compensated output signal.
2. (Currently Amended) The converter of claim 1 further characterised by:
the summation means (580) being arranged to subtract the compensation signal from the output signal in order to provide the compensated output signal.
3. (Cancelled)
4. (Currently amended) A method for compensating for known non-ideal characteristics in a continuous time sigma delta converter (510, 530, 540, 560), the method comprising:
converting an input signal of one time domain to an output signal of another time domain using a converter (510, 530, 540, 560) having known non-ideal characteristics;
modelling the non-ideal characteristics of the converter in a compensation circuit (570); and
combining a compensation signal output of the compensation circuit (570) with the output signal of the converter (510, 530, 540, 560) in order to provide a compensated output signal.
5. (Currently Amended) The converter of claim 1 further characterised by:
the non-ideal characteristics being associated with a feedback path (540) of the converter.

6. (Currently Amended) The converter of claim 1 further characterised by:
the non-ideal characteristics including symmetrical errors (235) associated with non-ideal rising and falling edges (230) of signal transitions of the converter (510, 530, 540, 560).
7. (Currently Amended) The converter of claim 1 further characterised by:
the non-ideal characteristics including asymmetrical (245) errors associated with non-ideal rising and falling edges (230) of signal transitions of the converter (510, 530, 540, 560).
8. (Currently Amended) The converter of claim 1 further characterised by:
the compensation circuit (570) having calibration parameters (375, 395) determined by a dichotomy technique which iteratively refines the values of the calibration parameters (375, 395).

9. -14 (Cancelled)

15. (Currently Amended) The method of claim 4 further characterised by:
the non-ideal characteristics being associated with a feedback path (540) of the converter.
16. (Currently Amended) The method of claim 4 further characterised by:
the non-ideal characteristics including symmetrical errors (235) associated with non-ideal rising and falling edges (230) of signal transitions of the converter (510, 530, 540, 560).
17. (Currently Amended) The method of claim 4 further characterised by:
the non-ideal characteristics including asymmetrical (245) errors associated with non-ideal rising and falling edges (230) of signal transitions of the converter (510, 530, 540, 560).

18. (Currently Amended) The method of claim 4 further characterised by:
the compensation circuit (570) having calibration parameters (375, 395)
determined by a dichotomy technique which iteratively refines the values of the
calibration parameters (375, 395).